

Title (en)

Precoding circuit and precoding-multiplexing circuit for realizing very high transmission rate in optical fiber communication

Title (de)

Vorkodierungsschaltung und Vorkodierungs-Multiplexing-Schaltung zur Realisierung sehr hoher Übertragungsraten in einer Lichtwellenleiterkommunikation

Title (fr)

Circuit précodé et circuit de multiplexage à précodage pour effectuer un taux de transmission très élevé dans une communication à fibre optique

Publication

**EP 1830532 A1 20070905 (EN)**

Application

**EP 07009325 A 20000203**

Priority

- EP 00102109 A 20000203
- JP 2640899 A 19990203

Abstract (en)

A precoding-multiplexing circuit is formed by a precoding circuit for carrying out a precoding with respect to n sets of parallel input binary data signals having a bit rate equal to R/n, to obtain n sets of parallel precoded signals, and a time division multiplexer for time division multiplexing the parallel precoded signals obtained by the precoding circuit, in units of one bit, and outputting time division multiplexed output signal having a bit rate equal to R. In this configuration, the encoding is realized by processing electric signals before the time division multiplexing, so that it becomes possible for the precoding circuit to handle signals which are slower than the transmission rate, and therefore it becomes easier to realize the higher transmission rate.

IPC 8 full level

**H04J 14/08** (2006.01); **H04L 25/497** (2006.01); **H04J 3/00** (2006.01); **H04J 3/04** (2006.01); **H04L 25/02** (2006.01)

CPC (source: EP US)

**H04L 25/497** (2013.01 - EP US)

Citation (search report)

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- [YA] YONENAGA K ET AL: "DISPERSION-TOLERANT OPTICAL TRANSMISSION SYSTEM USING DUOBINARY TRANSMITTER AND BINARY RECEIVER", JOURNAL OF LIGHTWAVE TECHNOLOGY, IEEE. NEW YORK, US, vol. 15, no. 8, 1 August 1997 (1997-08-01), pages 1530 - 1537, XP000720478, ISSN: 0733-8724
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Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

**EP 1026863 A2 20000809; EP 1026863 A3 20060412; EP 1026863 B1 20110119**; DE 60045532 D1 20110303; EP 1830531 A1 20070905; EP 1830531 B1 20150506; EP 1830532 A1 20070905; EP 1830532 B1 20150422; JP 2000224244 A 20000811; JP 3474794 B2 20031208; US 6934308 B1 20050823

DOCDB simple family (application)

**EP 00102109 A 20000203**; DE 60045532 T 20000203; EP 07009323 A 20000203; EP 07009325 A 20000203; JP 2640899 A 19990203; US 49697400 A 20000202